

ABSTRACT OF THE DISCLOSURE

According to the present invention, there are newly provided in a scanning electron microscope with an in-lens system a first low-magnification mode that sets the current of the object lens to be zero or in a weak excitation state, and a second low-magnification mode that sets the current of the object lens to be a value that changes in proportion to the square root of the accelerating voltage. The scanning electron microscope has a configuration wherein normal sample image (secondary electron image) observation is performed in the first low-magnification mode, and it switches the first low-magnification mode to the second low-magnification mode when X-ray analysis is performed. As a result, both sample image (secondary electron image) observation and X-ray analysis can be performed in low-magnification mode.